talk about that a little bit. Again, relating to some of the innovations going on in Illinois, there is a consortium of some 20 school districts in the Chicago area. It is called the First in the World Consortium. They lived up to their name because in the international math and science tests of which I spoke earlier, this group of schools scored first in the world. They were all public school students and they scored first in math and science—the public school system, and they received the best results in the world in these areas.

The results of these tests prove that America's public schools can produce the best and the brightest students in the world if only they have the support, the resources and the tools with which to do the job. What does the First in the World Consortium have that too many of our schools lack? It is not the kids. It is not the makeup of the students. Our children are as capable of performance as children anywhere else in the world, whether they come from rich families or from poor families. We have some of the brightest students in the world, who only need the opportunity to learn. The difference, however, is what support we as a community provide for those children. The schools that comprise the First in the World Consortium have some of the best facilities in this country. They have small classes. They have modern technology. They have supportive communities. And they have engaged and involved parents and teachers.

We all, I think, have a responsibility to ensure that every American child will have access to the same kind of quality education that is made available in the public schools at the First in the World Consortium. The tax changes envisioned in this legislation will not accomplish that goal. The bill will not result, again, in the improvement of a single public school. The amendment which I hope to talk about suggests that we have to undertake a partnership between the State and local and National Governments to provide the kind of resources for public education that made our country the strongest in the world and will keep it the strongest in the world for the 21st Century.

This conversation is going to go on for a couple of days. I would like to leave you with an analogy which I think is absolutely appropriate when we talk about how we are going to address the challenge of education for the 21st Century.

There have been some arguments that it is not the Federal Government's job; that, indeed, it should be left to the locals to address education, and it is their job, it is their responsibility to see to it that the schools in a local community function well and provide quality education. I would point out to the Presiding Officer and to anyone else listening that that analogy fails altogether to recognize our national interest and our interest as a community of Americans in seeing to it that all children, whether they live in Chicago or California or Detroit or in Florida or in Georgia or in Alabama—that all children in this country receive the best possible education that we can give them. It is particularly important in this information age, given the technological revolution, because the command of and the ability to manipulate and use information will be more important in the workforce of the future than it is today. If we do not educate our children, we will, as a country, see a lessening in the ability of our national workforce to be productive in these global markets.

So, to use an analogy, when it comes to talking about what is our interest, why should the Senator from Illinois care about education for a child from North Dakota or why should the Senator from Illinois care about the education of a child in Alabama, the reason I care is I love my country and I care about the ability of my country to have a workforce that can function in this global economy. Just as in the 1950s it was seen as in our national interest to bring our country together, this debate holds the same promise. This debate will either turn on a vision of America that says we are all connected to each other, we all have a responsibility to each other, or it will turn on a vision of America that says, ''I've got mine; you get yours. In your State, in your city, education is your problem.''

I suggest the time for the finger-pointing on education has to stop. We have to form a partnership that will provide our schools with the resources that we will need to educate our children—all of them. Again, to use the analogy from the 1950s, President Eisenhower saw the value in providing our country with an interstate highway system. He brought America together by providing a system whereby the National Government would contribute to the construction and the development of roads all across this country. That interstate highway system brought us together as a nation and served our national interests in transportation.

The way that we are funding education currently would be the equivalent of saying to each and every community in America—which, of course, we are saying to each and every community in America—you go find the money from your local property tax base to provide for your schools. And if you don't have the money in your local property taxes for your schools, it will just be too bad. To use the road analogy again, it's like saying in those communities that have a limited property tax base and in poor communities, they will have shoddy roads if any roads at all. The middle-class communities with moderate means will have kind of a hodgepodge and a mix of decent roads and kind-of-decent roads; and the wealthy communities will have the greatest roads in the world. But when you put it all together, you have not served transportation from one end of this country to the other. You have left the issue of transportation up to the resources of the specific and discrete communities and, more to the point, the property tax base that that community can resort to. That is how we fund education in this country. By relying on the local property tax base, we depend entirely on the accident of geography and demographics whether or not a child's school will be adequate to provide a quality education.

So I say to my colleagues that, as we look at this issue, let's find common ground, let's stop pointing fingers, and, as much the point, let's not continue to allow the kind of savage inequalities that exist among communities based on wealth to determine the future of our country in this 21st century global economy. If a community does not have the property tax resources to provide for educational opportunity, then that community ought to be supported in its efforts to educate its children by the State and by the National Government. We all have a role to play. We all have a contribution to make.

Again, finger pointing only hurts the children. I am going to, at this point, thank the Chair and yield the floor. I just say I look forward very much to continuing this debate in the upcoming days. I think it is one of the most important debates that we can take up as a Senate. I think the future of our country, indeed our national security, hangs on our ability to address in a sensible and workable and comprehensive way, the challenge of public education for the 21st Century.

I yield the floor.

The PRESIDING OFFICER. The Senator from Kansas is recognized.

Mr. ROBERTS. Mr. President, the parliamentary situation is such that we are in morning business and Senators are permitted to speak for up to 10 minutes; is that correct?

The PRESIDING OFFICER. The Senator is correct.

NATO EXPANSION

Mr. ROBERTS. Mr. President, the letter got lost in the mail. It never made it to President Yeltsin. It never made it to the radar crews in Russia. As a result, within minutes, Russian President Boris Yeltsin was brought a black nuclear command suitcase and for several minutes, wild confusion reigned in Russia, as Russia's command and control system was operating in a combat mode.

The letter was from the Norwegian Foreign Ministry, and it was routine. It informed the Russians and other surrounding countries that a joint United States and Norwegian research rocket would be launched to study the northern lights. As I say, it was a foulup, a bureaucratic foulup, and it prompted a hair-trigger war scare, a nuclear war scare, only 3 years ago.

Mr. President, I rise today to focus on this incident, because I believe it is

the kind of discussion that we should carefully consider as we move to the debate on NATO and NATO expansion and the kind of debate that has not received much, if any, public attention.

I encourage my colleagues to read two articles that appeared in the Washington Post, Sunday the 15th of March and Monday the 16th. Those two articles focus on areas that I feel the United States should be most concerned about: United States-Russia relations and the status and the direction of the Russian nuclear forces and their command and control. The two articles, entitled ''Cold War Doctrines Refuse To Die'' and ''Downsizing a Mighty Arsenal,'' are a two-part series by David Hoffman and paint a very discouraging picture.

The first article describes the January 25, 1995, launch, as I have indicated, of a joint Norwegian-United States research rocket off of Norway's northwest coast. For a brief period of time, the Russians actually mistook this launch as one from a U.S. submarine and a possible threat to Russia. Some analysts say that day we came as close as we ever have come to a counterlaunch by the Russians. The article further discusses the deteriorating state of the Russian command and control systems and early warning systems.

The second article discusses the impact of the economic problems on the Russian strategic weapons system. The author outlines the sad material and operational shape of the nuclear armored submarine and rocket forces. He states that the economic weaknesses of Russia will, outside of any bilateral agreements, drive the number of operational warheads to below START II levels.

I suppose many could be saying, ''So, what's the problem? That's what we want, fewer weapons systems and nuclear warheads, right?'' Well, it's not that easy. Certainly, the wanted downsizing should be a controlled, systematic, consistent process and not one that is as chaotic as the article certainly portrays.

My purpose today is to highlight this problem and to urge that the administration be more concerned and that the Congress be more concerned about United States-Russia relations. Opponents of NATO enlargement say our actions have resulted in a delay in the Duma's ratification of START II. They further state that because of the increased military capability of an enlarged NATO, Russia must depend on nuclear weapons as a first-use capability since their conventional forces are so weakened. Proponents of enlargement pretty much scoff at these assertions and state that although Russia does not like NATO enlargement, they need to ''get over it.'' My concern is not to guess which camp is right but to say in our relations with Russia, we need to go slow, we need to ensure we fully understand the long-term implications of our actions.

My bottom-line concern and fear is that this administration has no long-range, overarching strategy in our relations with Russia. Unfortunately, I believe this is a hallmark in the President's foreign policy, just as we have seen in his policy in Bosnia and just as we have seen in his policy in Iraq. Where is the end game?

Russia is a huge country that does exist and does still have tens of thousands of nuclear warheads. They will play a major role in the future of Europe. Our choice, Mr. President, is to continue to treat them as a defeated foe—and too many in the Congress certainly have that view—or to work with them to continue to develop their form of government and their military consistent with our common values.

Mr. President, I ask unanimous consent that these two articles be printed in the RECORD. I understand the Government Printing Office estimates it will cost $1,616 to have these two articles printed in the RECORD.

There being no objection, the articles were ordered to be printed in the RECORD, as follows:

[From the Washington Post, Mar. 15, 1998]

COLD-WAR DOCTRINES REFUSE TO DIE—FALSE ALERT AFTER '95 ROCKET LAUNCH SHOWS FRAGILITY OF AGING SAFEGUARDS

(By David Hoffman)

MOSCOW.—At dawn on the morning of Jan. 25, 1995, a four-stage Norwegian-U.S. joint research rocket, Black Brant XII, lifted off from an island off Norway's northwest coast. Ninety-three seconds after launch, the fourth stage burned out, hurling the rocket and its payload nearly straight up.

The rocket was designed to study the Northern Lights, but when it rose above the horizon, it turned into another kind of experiment—a test of the hair-trigger posture that still dominates the control of Russian and United States nuclear weapons.

The rocket was spotted by Russian early-warning radars. The radar operators sent an alert to Moscow. Within minutes, President Boris Yeltsin was brought his black nuclear-command suitcase. For several tense minutes, while Yeltsin spoke with his defense minister by telephone, confusion reigned.

Little is known about what Yeltsin said, but these may have been some of the most dangerous moments of the nuclear age. They offer a glimpse of how the high-alert nuclear-launch mechanism of the Cold War remains in place, and how it could go disastrously wrong, even though the great superpower rivalry has ended.

Russia and the United States still rely on a doctrine that calls for making rapid-fire decisions about a possible nuclear attack. If a Russian president wants to retaliate before enemy missiles reach his soil, he has about eight minutes to decide what to do.

Yet, in the Norway episode, the information needed for such a momentous decision was unclear. Although eventually the Norwegian rocket fell into the ocean, it triggered a heightened level of alert throughout the Russian strategic forces, according to testimony to the U.S. Congress, and other sources, and market the first time a Russian leader had to use his nuclear briefcase in a real alert.

Now that the superpower tensions have eased, so have the chances of a misunderstanding leading to nuclear war. But some Western experts say the Norway rocket episode may not be the last.

The reason is that Russia's system of early warning of a possible attack, and command and control of nuclear forces, is suffering many of the same problems plaguing the entire military. Russia inherited from the Soviet Union a system of radars and satellites, but after the Soviet break-up, many are no longer on Russian soil. Russia's six-year economic depression has led to hardship for many officers, including many who work in nuclear command installations, who receive low pay and lack permanent housing. The radar-and-satellite system is vulnerable because there are gaps in the network, which will grow more serious this year as yet another Russian radar station is closed in Latvia.

The prospect of a mistake ''has become particularly dangerous since the end of the Cold War,'' Vladimir Belous, a retired general and leading Russian strategist, wrote recently. He added that ''a fateful accident could plunge the world into the chaos of a thermonuclear catastrophe, contrary to political leaders' wishes.

The degradation of Russia's early-warning system comes as its strategic forces are also shrinking. The forces made up of nuclear-armed submarines, long-range bombers and intercontinental ballistic missiles built by the Soviets during the Cold War are declining dramatically in both numbers and quality. Within a decade, experts predict, Russia will have a nuclear arsenal just one-tenth the size of the Soviet Union's at the peak of the superpower rivalry, because of arms control treaties, looming obsolescence and Russia's economic depression.

The process is posing painful questions for Russia's political and military elite. They want to preserve Russia's place as a global power but cannot support the colossal forces and intricate systems that made up the Soviet nuclear deterrent.

What makes the radar and satellite gaps worrisome is that Russia still adheres to nuclear doctrines of the Soviet era. The overall deterrence concept is known as Mutual Assured Destruction, under which each side is held in check by the threat of annihilation by the other. One part of this cocked-pistols approach is ''launch-on-warning,'' in which both sides threaten that if attacked they will unleash massive retaliation, even before the enemy warheads arrive. The idea is that such a hair-trigger stance will discourage either from attempting to strike first.

Russia also inherited from the Soviet Union a second, related approach, which is to preserve the ability to launch a retaliatory strike even after the enemy's warheads have hit. This is called ''launch-on-attack.'' In Moscow, massive underground bunkers and a secret subway were built to protect the Soviet leadership so they could launch a retaliatory strike.

LOST IN THE BUREAUCRACY

The message from the Norwegian Foreign Ministry was routine. On Dec. 21, 1994, it sent out a letter to neighboring countries, including Russia, about the impending launch of the Black Brant XII, a four-stage research rocket, between Jan. 15 and Feb. 10, depending on weather conditions.

But the letter got lost in the Russian bureaucracy and never made it to the radar crews, as had past notifications. Norway had launched 607 scientific rockets since 1962. But the Black Brant XII was bigger than any of those. The rocket was a cooperative effort with the U.S. National Aeronautics and Space Administration, and was built with surplus U.S. rocket engines.

According to Peter Pry, a former CIA official who chronicles the episode in a coming book, ''War Scare,'' the rocket ''resembled a U.S. submarine-launched, multiple-stage ballistic missile.'' Theodore A. Postol, a professor at MIT, said that the Norwegian rocket

may well have looked to the radar operators like a multistage missile launched from a Trident submarine. The launch occurred in a region considered, during the Cold War, to be a likely corridor for an incoming ballistic missile attack.

Anatoly Sokolov, the commander of the Russian radar forces, recalled shortly afterward that ''what happened was an unscheduled training exercise. . . . We all found ourselves under stress.'' He said, ''An officer on duty reported detecting a ballistic missile which started from the Norwegian territory. What kind of missile is it? What is its target? We were not informed. . . . If it had been launched on an optimal trajectory, its range would have been extended to 3,500 kilometers [2,175 miles], which, in fact, is the distance to Moscow.''

''The thing is,'' he added, ''the start of a civilian missile and a nuclear missile, especially at the initial stage of the flight trajectory, look practically the same.''

The Black Brant XII triggered a tense chain reaction in Russia. According to Nikolai Devyanin, chief designer of the Russian nuclear ''suitcase,'' the radar operators were under crushing pressure. They remembered how Mathias Rust, a German youth, flew a small plane through Soviet air defenses in 1987 and landed it in Red Square, shaking the Soviet hierarchy to its foundations. Moreover, in five or six minutes, the Norwegian missile could hit the Kola Peninsula, where Russia's nuclear-armed submarines are based.

Devyanin has said the radar operators could be reprimanded for sending out a false, panicky signal. But they also feared it was a real threat. So they decided to issue an alert that it was an unidentified missile, with an unknown destination.

The alert went to a general on duty. He, too, decided that it was better to send on the alert to the highest levels, than to be blamed for a disaster. One factor, Western officials said later, might have been fear that the lone missile would release a huge, debilitating electromagnetic pulse explosion to disarm Russia's command-and-control system, as a prelude to a broader onslaught.

At that point, the Russian electronic command-and-control network known as Kazbek, had come to life.

The duty general received his information from the radar operator on a special notification terminal, Krokus. He then passed it to the Kavkaz, a complex network of cables, radio signals, satellites and relays that is at the heart of the Russian command and control. From there, it caused an alert to go off on each of the three nuclear ''footballs'' in the Russian system: one with Yeltsin, one with then-Defense Minister Pavel Grachev and a third with the chief of the General Staff, then Mikhail Kolesnikov. The black suitcases were nicknamed Cheget.

The command-and-control system ''was now operating in combat mode,'' Devyanin said. Yeltsin immediately got on the telephone with the others holding the black suitcases, and they monitored the rocket's flight on their terminals. (The actual launch orders are not given from the suitcase, only the permission to fire. The launching process, including ciphers, is controlled by the military's General Staff, which, in some circumstances, is authorized to act on its own.)

Devyanin noted a strange irony. The Cheget suitcase was a product of the final phrase of the Cold War, during the tense early 1980s, when Soviet leaders feared a sudden attack launched from Europe or nearby oceans. They needed a remote command system to cut down reaction time.

The suitcases were put into service just as Mikhail Gorbachev took office. Gorbachev, however, never used them in a real-time alert, officials said. The first serious alert came only after the end of the Cold War, on Yeltsin's watch.

Devyanin said that at the time he was disturbed by the way a misplaced document led to such high-level confusion. ''The safety of mankind should not depend on anyone's carelessness,'' he said.

The day after the incident, Yeltsin announced that he had used the nuclear briefcase for the first time. Many in Russia dismissed his comment as a bit of bravado intended to divert attention from the debacle of the Chechen war, then just beginning to unfold.

Even today, Russian officials brush aside questions about the incident, saying it has been overblown in the West. Vladimir Dvorkin, director of the 4th Central Research Institute, a leading military think tank, said he saw no danger from the Norwegian alert, ''none at all.''

He added, ''It's very difficult to make a decision'' to launch, ''maybe even impossible for civilized leaders. Even when a warning system gives you a signal about a massive attack, no one is ever going to make a decision, even an irrational leader alarmed that one missile has been fired. I think this is an empty alarm.''

But the incident did set off alarms. Former CIA director R. James Woolsey told Congress in 1996 that the Russians went on ''some sort of'' alert, ''not a full strategic alert, but, at least, a greater degree of strategic inquisitiveness.''

Bruce Blair, a senior fellow at the Brookings Institution in Washington who has written extensively on the Soviet and Russian command-and-control systems, said a signal was sent to the Russian strategic forces to increase their combat readiness, but the crisis then ended. Blair said the significance of the episode was the confusion that marked the period during which Yeltsin would have had to make a real ''launch-on-warning'' decision. Blair pointed out that the Soviet Union and Russia have been through coup, rebellion and collapse over the last decade, and a leader may well be called on to make crucial decisions at a time of enormous upheaval.

Postol said, ''The Norwegian rocket launch is an important indicator of a serious underlying problem. It tells us something very important: People are on a high state of alert, when there is not a crisis. You can imagine what it would be like in a high state of tension.''

Pry said that there have been other false alarms in the nuclear age, but none went as far as Jan. 25, 1995, which he described as ''the single most dangerous moment of the nuclear missile age.''

''PARTIALLY BLIND'' RUSSIA

The first radar-blip warning of the Norwegian rocket came from the early-warning system built around the periphery of the Soviet Union. The concept of ''launch-on-warning''—a quick-draw response to nuclear attack—depends on swift, reliable warning.

''Get it right, it makes no difference to us what kind of missile it is, meteorological, testing or combat,'' Sokolov, the Russian radar forces commander, said after the Norwegian episode. He said the radars are the ''eyes and ears of the president.''

But the Soviet collapse has muffled those sensors. The Soviet radar system was being modernized when the country fell apart. One of the new replacement radars, in Latvia, was torn down in May 1995. Russia won a temporary reprieve against closing two older radars in Latvia, but that agreement expires in August. Latvia recently announced it will not let Russia renew. The radar is one of those covering the critical northwestern direction.

Meanwhile, other radars used by Russia have been left in Ukraine, at Mykolayiv and Mukacheve; in Azerbaijan, at Mingacevir; and Kazakhstan, at Balqash. Some are functioning, but there have been disputes over finances and personnel. Russian authorities hope to complete an unfinished radar in Belarus to compensate for the loss in Latvia, but the prospects are uncertain.

Overall, only about half the original radars remain inside Russia. In addition, the system of satellites used for detecting missile launches is also depleted. There are two groups of satellites. One group in a high elliptical orbit monitors U.S. land-based missile fields, but cannot see missiles launched from the ocean. Russia has two other geostationary satellites but they do not provide complete coverage of the oceans, where U.S. Trident submarines patrol.

Postl has calculated that Russia has serious vulnerabilities in its early-warning network, especially given the highly accurate Trident II sea-launched ballistic missile system. For example, Russia could entirely miss a missile launched toward Moscow from the Pacific Ocean near Alaska because of radar gaps, he said.

''Russia is partially blind—that's absolutely correct,'' said a former air defense officer.

ADMONISHED BY YELTSIN

In January 1997, a group of workers at a small state-owned institute near St. Petersburg went on strike. The workers at the Scientific Production Corp. Impuls said they had not been paid for eight months.

The strike touched a nerve among those who knew about Impuls. Its founder, Taras Sokolov, pioneered the Russian nuclear command system, known as Signal. The workers at Impuls said they were fed up and would not go back to work until paid.

Within days, Defense Minister Igor Rodionov took an extraordinary step. He too was frustrated. He had devoted his career to the conventional army, but it was disintegrating before his eyes. Yeltsin was ill, and Rodionov could not reach him on the phone. Finally, he wrote an alarming letter to Yeltsin. He said the command-and-control systems for Russia's nuclear forces—including the deep underground bunkers and the early-warning system—were falling apart.

''No one today can guarantee the reliability of our control systems,'' Rodionov said. ''Russia might soon reach the threshold beyond which its rockets and nuclear systems cannot be controlled.''

A retired colonel, Robert Bykov, who had worked in some of the military's electronic command systems until 1991, echoed Rodionov's comments in an article he wrote for a mass-circulation newspaper, Komsomolskaya Pravda. Bykov said Rodionov was ''absolutely correct.'' He added, ''Even in my period of service, the equipment ceased functioning properly on more than one occasion, or certain parts of it spontaneously went into combat mode. You can imagine what is happening now.''

In a lengthy interview, Bykov said he was the subject of an investigation by the Federal Security Service after the article appeared. Recalling his experiences, he said that periodically the central command system went into a ''loss of regime'' mode, which he described as a neutral position, where it could not send out commands. He said there were also a few incidents in which individual missile silos or regiments would report to the center that they were in ''combat mode,'' but he said the main system could prevent any accidental launch.

Bykov's article had an impact outside Russia. It was picked up in a CIA report outlining Rodionov's concerns about nuclear command and control. The Washington Times

disclosed the report on the day Rodionov arrived in Washington in May 1997 for a visit.

Rodionov recalled in an interview that he eventually had a meeting with Yeltsin. ''You shouldn't have said that,'' Yeltsin admonished him, he said.

Rodionov said he drew up a plan for army reform that included drastic cuts in nuclear weapons, but never got a chance to take it out of his briefcase. He was dismissed and replaced by Igor Sergeyev, the head of the strategic rocket forces—a move crystallizing the new emphasis on nuclear deterrence.

Russian officials have repeatedly denied that the strategic forces command system is weakening. They say it has rigid controls against an accidental launch or theft. The U.S. strategic forces commander, Gen. Eugene Habiger, visited Russian command centers last fall and said they were ''very much geared to a fail-safe mode'' in which any command level ''can inhibit a launch'' of a missile.

But Sergeyev has acknowledged the system is growing old; most of the command posts were built more than 30 years ago. The rocket forces are also suffering shortages of trained personnel and severe social problems such as a lack of housing for 17,000 officers. A well-informed Russian expert on the command system said, ''Today it's not dangerous but tomorrow it might be. It is going down. It has not reached the critical point. But the trends are down—days when designers are not paid, when money is not allocated for upkeep.''

In the coming decade, Russia is to move toward a drastically curtailed nuclear force, one that will be just larger than those of China or of France and Britain combined. Some Russian strategists are already rethinking the Cold War doctrines that called for Moscow to deploy vast weapons systems carrying thousands of warheads for attack on the United States. With fewer weapons, limited finances, gaps in early warning, and the dissipation of Cold War rivalry, some analysts have urged Russia and the United States to take nuclear weapons off hair-trigger alert.

LOWERING THE RISK

Blair, the Brookings analyst, has been the chief proponent of ''de-alerting,'' which he said ''means we increase the time needed to launch forces from the current minutes to hours, days, weeks or longer, through a variety of measures like taking the warheads off the missiles.'' He added, ''It would take them out of play, so there is a much lower risk of their mistaken use.''

But in Russia, there is no clear sense of direction. If anything, analysts here said they think Russia may drift away from launch-on-warning. This is driven by necessity: The warning system is deteriorating. ''Basically, the shift is being made already,'' said the Kremlin defense strategist.

However, others said the change is not certain. The Russian military elite was trained to think in global terms but now faces the reality of becoming a second-class power at a time of overwhelming American superiority. Russia may be reluctant to give up the threat of a launch-on-warning, at least formally.

''I think there will be some kind of transition period, 10 to 15 years,'' said Anatoly Diakov, director of the Center for Arms Control, Energy and Environmental Studies here. ''Russia will save the opportunity to return to launch-on-warning, just in case. This is some kind of hedge against adverse developments. But the main priority will be a transition from launch-on-warning to a retaliatory'' posture.

Asked whether Russia should give up launch-on-warning, Dvorkin said, ''On even days, I think we should reject it. On odd days, I think we should keep it.''

''Why?'' he asked. ''Because how is launch-on-warning dangerous? It's dangerous with a possible mistake in making the decision to launch.'' But, he added, ''making this mistake in peacetime, a time like now, the likelihood is practically zero. Because the situation is quiet. Only if there is some increase in tension between countries, then the likelihood of a mistake increases.''

Just the fact of having launch-on-warning, he said, would discourage both countries from returning to Cold War tensions. ''We must sit quietly,'' he added, ''like mice in our nook.''

[From the Washington Post, Mar. 16, 1998]

DOWNSIZING A MIGHTY ARSENAL—MOSCOW RETHINKS ROLE AS ITS WEAPONS RUST

(By David Hoffman)

MOSCOW.—Russia's strategic forces, the vast phalanx of nuclear-armed submarines, bombers and intercontinental ballistic missiles built during the Cold War by the Soviet Union, are suffering a dramatic decline because of arms control treaties, the Soviet breakup, looming obsolescence and Russia's economic depression.

Regardless of whether the United States and Russia move ahead on bilateral arms-control treaties, a decade from now Russia's forces will be less than one-tenth the size they were at the peak of Soviet power, according to estimates prepared in Russia and in the West. Ten years from now, if current economic trends continue, Russia may have a strategic nuclear force just larger than that of China, and somewhat larger than Britain's and France's combined.

This slide has enormous implications for Russia and the West that are only now beginning to emerge. For Russia, the decline has raised painful dilemmas about its place in the world, underscoring yet again the erosion of its superpower status.

At the same time, while the nuclear shield is shrinking, Russian leaders have decided to rely on the deterrent power of the nuclear weapons more than ever—to compensate for their even weaker and more chaotic conventional forces. President Boris Yeltsin recently signed a new national security doctrine that enshrines this idea. Russia also has dropped its pledge not to be the first to use nuclear weapons.

''All we have is the nuclear stick,'' said Lev Tolkov, a prominent Russian military strategist. ''Of course, we should all together decrease this nuclear danger. But right now, we have nothing else. We're naked. Can you imagine that?''

Some Russian strategists are beginning to look for an exit from the arms-race mentality of the Cold War, a way that would preserve Russia's membership in the nuclear club, perhaps even its Great Power status, but without the enormous drag on its resources. One recent proposal is for Russia simply to abandon the bilateral arms-control process with the United States and go its way with a small, independent nuclear force.

In Moscow, leading politicians and military experts are also looking, nervously, not at the West, but at Russia's long, sparsely populated southern and eastern borders, toward China and the Islamic world, where they see the real future threats to Russian interests.

In the West, too, the decline of Russia's strategic forces could have serious repercussions, raising questions about sizes and posture of U.S. forces. Some see it as a chance for the United States to pursue still-deeper cuts in nuclear weapons, including a new strategic arms agreement, that would keep Washington and Moscow at approximate balance, ''locking in'' the lower Russian levels with formal treaties. Also, some experts say both sides should remove the still-tense nuclear-alert posture of the Cold War.

But there is also resistance from those who urge caution. For example, in the 1994 nuclear posture review, the Clinton administration decided to create a ''hedge'' of warheads against the prospects of future uncertainty in Russia and to preserve the existing U.S. structure of land-sea-air forces. Some argue that, as the only global superpower, the United States does not need to match the steep Russian decline. And Russia's woes may embolden backers of building a ballistic missile defense system.

Only a decade ago, when the Soviet arsenal hit its peak, the Pentagon warned that a parade of new weapons systems was being deployed, including the SS–18 Satan missile, the supersonic Blackjack bomber, and the giant Typhoon ballistic-missile submarine. The Pentagon's annual ''Soviet Military Power'' tract declared that ''the most striking feature of Soviet military power today is the extraordinary momentum of its offensive strategic nuclear force modernization.''

Today, that momentum has stopped. The Typhoons, Satans and Blackjacks are doomed. Russia, the sole heir of the Soviet nuclear forces, still has thousands of warheads. But the mechanical leviathans needed to carry them are deteriorating.

The Russian landscape is littered with stark evidence of this decline. At Russia's Northern and Far Eastern ports, nuclear-powered submarines are piling up in watery junkyards. The largest group of Blackjack bombers is rusting away in Ukraine. Even the core of the Russian strategic deterrent, the missile force, is expected to shrink dramatically in the years ahead, although Russia is trying to deploy a new class of land-based intercontinental ballistic missiles. But so far, only two rockets have been put on duty, three years behind schedule.

SILENT FACTORIES AND SHIPYARDS

Moreover, most of the huge factories and shipyards that rolled out the giant Soviet arms buildup in the 1980s have fallen silent. In many cases the experts who built them have simply disappeared.

Like the United States, Russia has a three-legged structure of nuclear forces: a triad of land, sea and air weapons. But Russia's triad may cease to exist over the next decade. Most likely, experts say, the long-range bombers, which have always been the least significant leg of the Russian triad, will become obsolescent, leaving a diminished submarine fleet and land-based rocket forces to carry the nuclear deterrent.

How far and how fast the Russian forces decline depends on whether the now-moribund economy can recover. But independent estimates by authoritative Russian and Western experts show the same outcome in the next 10 to 15 years—movement toward a drastically reduced nuclear force. The result is being decided today; weapons take decades to design and build but almost none are in the works, and existing programs are starved for money.

According to the estimates, Russia's nuclear forces are shrinking even faster than the START II treaty will require. The treaty, which called for both sides to have between 3,500 and 3,000 warheads, was signed five years ago but has yet to be ratified by the lower house of the Russian parliament, the State Duma.

Even more striking, Russian and Western specialists now estimate that, if the economy remains flat, Russia probably cannot even sustain the level of nuclear weapons envisioned just a year ago for a follow-on treaty, START III. In a meeting at Helsinki last

March, Clinton and Yeltsin set the target for this treaty as 2,000 to 2,500 warheads on each side. Both treaties would be implemented by 2007 but warheads would be deactivated by 2003.

More likely, Russian and Western specialists said, Russia will wind up with an arsenal of 1,000 to 1,500 warheads a decade from now. However, it could fall to half that if the economy does not recover. That would put Russia in a league with China, which is estimated to have 400 warheads today—or roughly equivalent to the total by Britain, with 260, and France, with 440.

Volkov, the Russian military analyst, recently estimated that even with robust economic growth, Russia will have only 700 warheads a decade from now. Sergei Kortunov, a top Kremlin defense aide, has written that ''with a lot of effort'' Russia might reach 1,000 warheads by 2015.

By contrast, according to the Natural Resources Defense Council in Washington, the Soviet Union in 1990 had 10,779 strategic nuclear warheads. (This does not include the estimated 6,000 to 13,000 nonstrategic, smaller nuclear charges Russia also still possesses, which have never been covered by arms control treaties.)

The U.S. strategic forces are relatively modern. The land-based Minuteman missiles, Trident submarines and B–52 bombers are expected to remain in service for a long-time. Gen. Eugene Habiger, commander of the U.S. strategic forces, said recently, ''I do not see the United States even thinking about having to modernize any of our forces until the year 2020.''

NUCLEAR-AGE ''GRAVEYARDS''

Boris Yeltsin has always been unpredictable while abroad, and last Dec. 2 he popped another surprise. On a visit to Stockholm, he declared: ''I am here making public for the first time that we, in a unilateral manner, are reducing by another third the number of nuclear warheads.''

Yeltsin's press secretary, Sergei Yastrzhembsky, said he was referring to a future START III arms control treaty with the United States. But later back in Moscow, a senior Russian defense strategist shook his head at Yastrzhembsky's explanation.

''To tell you the truth, I was bewildered,'' he said. Yeltsin's comment captured perfectly what is happening to Russian strategic forces, he added.

The decline was set in motion by the START I treaty, now being implemented. Russia has made cuts mostly by eliminating missiles it inherited from Belarus, Ukraine and Kazakhstan. Looming are deeper cuts in the forces now inside Russia, mandated by START II. But even more important than the treaties, the ebb of Russia's strategic forces is being driven by a simple fact: They are running out of steam, out of money, and out of time.

For example, in its 1989 report on Soviet military power, the Pentagon warned about the deployment of the Blackjack bomber, the Russian supersonic Tu–160. With low-mounted, swept-back wings and a long pointed nose, the plane was the most powerful combat aircraft in the Soviet air force, and was deployed with nuclear-armed AS–15 cruise missiles. Although the Soviet Union had planned to build 100 Blackjacks, only 25 were deployed. They had many malfunctions, but the biggest problem came on the day the Soviet Union fell apart: Most of the Blackjacks were not in Russia.

Nineteen Blackjack bombers were parked in Ukraine, where they remain. Years of negotiation between Russia and Ukraine for repurchase of the bombers by Russia have gone nowhere. According to Jane's Intelligence Review, the planes have practically lost their combat value.

Russia has only six Blackjacks, built in 1991, currently deployed at the Engels air base in the Volga region, but a Russian military source said only four of them are combat-ready. There are a few more Blackjacks partially finished or being used as trainers. Russia also has a fleet of older Tu–95 Bear bombers.

Russia's submarine fleet is the least vulnerable leg of the strategic triad—while the submarines are hidden under the ocean. But the navy is also in trouble. A.D. Baker III, editor of Combat Fleets of the World, said that at the present rate of decline, Russia's strategic-missile submarine fleet ''will be virtually extinct within a decade.'' At the end of 1997, he said, for the first time since the 1930s, the Russian navy had fewer operational submarines of all types than did the U.S. Navy.

Of 62 strategic submarines deployed by the Soviet Union in 1990, the Russian navy currently has only 28, and by some recent reports, as few as 23 are operational. Most of the rest have been junked or are waiting to be.

At a peak of the Cold War tensions, 20 to 22 submarines were at sea. Today, there are usually two, and they do not go far.

One of the fearsome symbols of Soviet power was the Typhoon, the largest submarine ever built—each accommodating 20 missiles with 10 warheads apiece. The six Typhoons completed between 1980 and 1989 could, in the event of a nuclear attack, send 1,200 nuclear warheads aloft.

But today only half the Typhoons are working. Three of the huge boats have been taken out of service. A new missile planned for them has yet to materialize, and it is unclear whether they will ever sail again.

Russia started construction in November 1996 on a new generation of strategic submarine, the Borey class, at the Severodvinsk shipyard in the north. But according to Baker, only 1 percent of the first submarine has been completed in 15 months of work, and the new missile planned for it has failed four times.

In addition to preserving its strategic submarine fleet, the navy is facing other pressing financial obligations. One of the most persistent headaches is that submarines have a service life of 25 to 30 years, but most undergo an interim overhaul every seven or eight years. For lack of financing for these repairs, many vessels are being retired early.

So far, 152 submarines have been retired officially and more are unofficially in line to be retired. A huge backlog of nuclear-powered vessels awaiting dismantling is building up in the Northern and Far Eastern ports, which environmentalists and others have warned has the potential for a naval disaster similar to that at the Chernobyl nuclear power plant in 1986.

''We have whole graveyards of nuclear weapons and we don't know what to do with them,'' Said Georgi Arbatov, a prominent strategist and adviser to Soviet leaders.

The core of Russian strategic forces is the land-based, continent-spanning missiles. But the clock is ticking for them, too.

Most of the missiles built in the 1970s and '80s are due to be retired or decommissioned if the START II treaty is ratified. This includes the 10-warhead ''heavy'' missile, the SS–18, which embodied the destabilizing threat of multiple-warhead missiles. Russia's force of SS–19 six-warhead missiles would also be reduced, and fixed with only one warhead each. The abolition of multiple warheads was the chief accomplishment of the START II treaty.

Some Russian politicians have threatened that Moscow could return to multiple-warhead missiles if it had to, but military experts pour cold water on the idea. It would be ''senseless from the military point of view and impossible from the economic point of view,'' Said Vladimir Dvorkin, director of the 4th Central Research Institute, the once-secret think tank for the Russian rocket forces.

A BRICK WALL OF OBSOLESCENCE

If START II is not ratified, the Russian missile forces will nonetheless hit a brick wall of obsolescence in the next decade. Gen. Vladimir Yakovlev, chief of the strategic rocket forces, said recently that 62 percent of Russia's missiles are already beyond their guaranteed service life. For the Russian military, this is often flexible. But there are serious problems: As the factories that made the missiles grind to a halt, and the workers and designers leave for other jobs, the problem of maintenance becomes acute. Scavenging for spare parts is common.

''They have to decide,'' said a Western diplomat, ''what is the risk? And, what choice do they have?''

The Russian military has repeatedly test-fired old rockets to see if they still work. They usually hit their targets. But last spring, according to one source, when a Typhoon attempted to fire 20 older rockets as part of a destruction routine, only 19 missiles came out. One failed to launch.

Volkov said: ''Everything ends. In 22 or 23 years, a moment comes when everything starts to collapse or fall apart. Each piece of equipment has a moment when the construction simply get old. You can change the equipment, you can change small things. But when the silo, the container, the body of the missile, when they are corroded, fungus eats through the metal, things start to grow on it—God knows what.''

Dvorkin said there is an expensive, labor-intensive drive to stretch out missile-service life. ''But of course, we can't hope that we can do it endlessly,'' he said. ''Not a single builder or scientist can tell you right now how long we can extend it. ''He added that eventually it becomes more costly to fix the rockets than to buy new ones.

The Strategic Rocket Forces are already struggling to deploy a new missile, the three-stage Topol-M, to be the core of Russia's future deterrent. That missile, both road-mobile and silo-based, is built entirely within Russia and designers have said its payload contains still-secret means for slipping through antimissile defenses.

The main question about the Topol-M is not so much technology as money and time. In December, the first two rockets were installed in an old SS–19 silo near Saratov, on the Volga River. Yakovlev said Russia hopes to deploy 10 missiles this year, but needs another $600 million before production can start. In the Soviet era, the Votkinsk factory, which builds the missiles in the central Urals mountains, made about 80 rockets a year. But now there are doubts about whether Russia can afford just 10 a year.

LOOKING FOR AN EXIT

For Russian strategic planners, the choices are painful. The Cold War is over but its immense and destructive hardware remains in place. Russia hungers for global prestige; many see the nuclear arsenal as its last remaining calling card as a great power. But Russia can't afford to sustain it any longer.

Some prominent military and political analysts have begun to talk about finding a way out of the cocked-trigger nuclear embrace with the United States, if only because Russia's dwindling forces demand it.

''The model of nuclear deterrence that existed during the Cold War must of course be radically changed,'' Dvorkin said, ''since it is senseless right now to deter the United States from an attack, nuclear or conventional, on Russia.''

Sergei Rogov, director of the USA-Canada Institute and a leading strategic analyst, said Russia and the United States have settled their long ideological struggle, but not even begun to wind down the nuclear threat. The 1994 agreement by Clinton and Yeltsin that missiles will not be targeted at each other was ''a step back from this trigger-happy situation,'' he said, but it was ''a gimmick, because it's reversible in one or two minutes.'' In fact, according to a Russian specialist, the Russian missiles can be re-targeted in 10 to 15 seconds.

Rogov said both countries still preserve intact the doctrine of Mutual Assured Destruction, a Cold War legacy under which both sides threaten to respond to an attack by wreaking massive damage on the other. ''You don't threaten your 'strategic partner' with assured destruction 24 hours a day,'' Rogov said, ''We need to abandon the Mutual Assured Destruction conditions with the United States.''

But the traditional arms control process is at an impasse. The Duma has refused to ratify the START II agreement. Without it, the United States has refused to begin formal negotiations on deeper cuts in a START III treaty. Many of Russia's top military strategists are eager to move ahead with deeper, joint reductions that would match the looming obsolescence of their forces.

At the same time, there is a new line of thinking that Russia should abandon bilateral negotiations with the United States and instead create a small and ''sufficient'' nuclear force, not unlike France's independent nuclear posture.

In an article just published in a Russian academic journal, Kremlin defense aide Kortunov and Vladimir Bogomolov, of the rocket forces, suggested Russia keep an independent force of 1,000 warheads. They argued that this would ''allow Russia to choose and adopt her own nuclear strategy.'' They said Russia could do this unilaterally and ''there will be no need for new talks'' with the United States.

Among Russia's military and political elite there is also a strong consensus that the West is no longer Russia's strategic adversary—and that the nuclear face-off is burdensome, diverting resources from other real problems. Many have concluded that Russia, with a long, sparsely populated southern border, needs to deter potential threats from the south and east—from the Islamic world and China—over the coming decade.

''I don't think Russia will have to worry about its western borders,'' said a top Kremlin security specialist. ''This will give us more time to pay attention to the southern borders.''

RUSSIA'S DWINDLING ARSENAL—RUSSIAN STRATEGIC WEAPONS, 1990-2012

The level of Russia's forces could change depending on the country's economy and how Russia decides to structure its forces. These estimates for future years are based on interviews by The Washington Post with Russian and Western experts. Levels will be even lower if the Russian economy does not recover.

TOTAL WARHEADS

1990	10,779
1997	6,260
2007	1,200
2012	700
Start-2 level	3,500
Start-3 level	2,000–2,500

RUSSIAN OPERATIONAL STRATEGIC NUCLEAR FORCES, 1998

Type	NATO designation	No. deployed	Year	Range (miles)	Total warheads
Bombers:					
Tu–95M	Bear–H6	29	1984	7,953	174
Tu–95M	Bear H16	35	1984	7,953	560
Tu–160	Blackjack	6	1987	6,835	72
Intercontinental ballistic missiles:					
SS–18	Satan	180	1979	6,835	1,800
SS–19	Stiletto	165	1980	6,214	990
SS–24	M1/M2 Scalpel	36/10	1987	6,214	460
SS–25	Sickle	360	1985	6,524	360
Sea-launched ballistic missiles:					
SS–N–18	M1 Stingray	192	1978	4,039	576
SS–N–20	Sturgeon	80	1983	5,157	800
SS–N–23	Skiff	112	1986	5,592	448
Total		1,205			6,240

RUSSIAN OPERATIONAL STRATEGIC NUCLEAR FORCES, 1998—Continued

Type	NATO designation	No. deployed	Year	Range (miles)	Total warheads
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Total		1,205			6,240

Source: ''Taking Stock, Worldwide Nuclear Deployments, 1998,'' by William Arkin, Robert S. Norris and Joshua Handler, Natural Resources Defense Council, 1998.

RUSSIAN SUBMARINE PATROLS PER YEAR, 1991–96

1991	55
1992	37
1993	32
1994	33
1995	27
1996	26

Source: U.S. Office of Naval Intelligence, released under FOIA to Princeton Center for Energy and Environmental Studies.

Mr. ROBERTS. I yield the floor.

Mr. KENNEDY addressed the Chair.

The PRESIDING OFFICER. The Senator from Massachusetts is recognized.

Mr. KENNEDY. I thank the Chair.

(The remarks of Mr. KENNEDY pertaining to the introduction of S. 1789 are located in today's RECORD under ''Statements on Introduced Bills and Joint Resolutions.'')

IMPLEMENTATION OF KASSEBAUM-KENNEDY HEALTH INSURANCE REFORM LEGISLATION

Mr. KENNEDY. Mr. President, a recent GAO report makes clear that significant insurance company abuses are undercutting the effectiveness of one of the key parts of the Kassebaum-Kennedy health insurance reforms enacted in 1996.

President Clinton announced today that he has called for vigorous enforcement against companies that are violating the law. But it is abundantly clear that additional action by Congress is needed to end the worst abuse—price-gouging by the insurance industry. I intend to introduce legislation this week to block that irresponsible practice.

Individuals who lose their group coverage and attempt to obtain individual coverage are being charged exorbitant premiums by insurance companies. We recognized that potential problem in 1996, but Republican opposition blocked any Federal role in preventing such abuse, on the ground that state regulation would be an adequate remedy. As the GAO report makes clear, state regulation is no match for insurance industry price-gouging.

The 1996 legislation was enacted in response to several serious problems. Large numbers of Americans felt locked into their jobs because of pre-existing health conditions which would have subjected them to exclusions coverage if they changed jobs.

Many more who did change jobs found themselves and members of their families exposed to devastating financial risks because of exclusions for such conditions. Other families faced the same problems if their employers changed insurance plans. Still others were unable to buy individual coverage because of health problems if they left their job or lost their job and did not have access to employer-based coverage.

The legislation addressed each of these problems. It banned exclusions for pre-existing conditions for people who maintained coverage, even if they changed jobs or changed insurers. It required insurance companies to sell insurance policies to small businesses and individuals losing group coverage, regardless of their health status. It banned higher charges for those in poor health in employment-based groups.

A GAO study in 1995 had found that 25 million Americans faced one or more of these problems and would be helped by the Kassebaum-Kennedy proposal. For the vast majority of these Americans, the legislation is working well. They can change jobs without fear of new exclusions for pre-existing conditions, denial of coverage, or insurance company gouging.

But as the GAO study makes clear, many of the two million people a year who lose employer-based group coverage are vulnerable to flagrant industry price-gouging if they try to purchase individual coverage.

When the 1996 act was moving through Congress, Democrats sought to place clear federal limits on these premiums for individual coverage. The Republican majority in Congress and the insurance companies refused to compromise on this issue—and restrictions on price-gouging were largely left to state law. Many States have put limits on such premiums, or enacted special group coverage for high-risk persons.

But too many states have failed to act effectively to prevent abuse. In addition to price-gouging, some companies have encouraged insurance agents to refuse to sell policies to individuals and imposed long waiting periods for coverage of particular illnesses and other unacceptable practices.

The verdict of experience is in. The GAO report makes clear that insurance companies are guilty of abuse beyond a reasonable doubt, and Congress has to act.

COVERDELL TAX BILL

Mr. KENNEDY. Mr. President, on the issue that is before us, which is basically the Coverdell education proposal, I will take a few moments of the Senate's time to express my strong reservations in opposition to the proposal, and I will outline the reasons why.

Public schools need help—and this ''do-nothing'' bill doesn't even get us to the front door. In fact, it goes in the opposite direction, by earmarking most of its aid to go to private schools.